

What is claim d is:

1. An electrostatic chuck comprising:
 - (a) a dielectric member comprising:
 - 5 (i) a first layer comprising a semiconductive material; and
 - (ii) a second layer over the first layer, the second layer comprising an insulative material; and
 - (b) an electrode in the dielectric member.
- 10 2. An electrostatic chuck according to claim 1 wherein the first layer comprises a resistivity of from about $5 \times 10^9 \Omega \text{ cm}$ to about $8 \times 10^{10} \Omega \text{ cm}$.
3. An electrostatic chuck according to claim 1 wherein the second layer comprises a resistivity of at least about $1 \times 10^{11} \Omega \text{ cm}$.
- 15 4. An electrostatic chuck according to claim 1 wherein the second layer comprises a resistivity of from about 1×10^{11} to about $1 \times 10^{20} \Omega \text{ cm}$.
5. An electrostatic chuck according to claim 1 wherein the first layer comprises Al_2O_3 .
- 20 6. An electrostatic chuck according to claim 1 wherein the first layer comprises TiO_2 .
7. An electrostatic chuck according to claim 1 wherein the first layer comprises AlN .
- 25 8. An electrostatic chuck according to claim 1 wherein the electrode is embedded in the first layer of the dielectric member.
9. An electrostatic chuck according to claim 1 wherein the second layer comprises AlN .
- 30 10. An electrostatic chuck according to claim 1 wherein the second layer comprises SiO_2 or ZrO_2 .
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11. An electrostatic chuck according to claim 1 wherein the second layer comprises polyimide or Teflon®.
12. An electrostatic chuck according to claim 1 wherein the dielectric member is fabricated by sintering ceramic powders.
13. An electrostatic chuck comprising:
- (a) a dielectric member comprising:
 - (i) a first layer comprising a resistivity of from about $5 \times 10^9 \Omega \text{ cm}$ to about $8 \times 10^{10} \Omega \text{ cm}$; and
 - (ii) a second layer over the first layer, the second layer comprising a resistivity of from about 1×10^{11} to about $1 \times 10^{20} \Omega \text{ cm}$; and
 - (b) an electrode in the dielectric member.
14. An electrostatic chuck according to claim 13 wherein the first layer comprises Al_2O_3 .
15. An electrostatic chuck according to claim 13 wherein the first layer comprises TiO_2 .
16. An electrostatic chuck according to claim 13 wherein the electrode is embedded in the first layer of the dielectric member.
17. An electrostatic chuck according to claim 13 wherein the second layer comprises SiO_2 .
18. An electrostatic chuck according to claim 13 wherein the second layer comprises ZrO_2 .

19. An electrostatic chuck comprising:
- (a) a dielectric member comprising:
- (i) a first semiconductive layer having a resistivity
- 5 that is sufficiently low to provide (i) a charging time of less than about 3 seconds, and
- (ii) allow accumulated electrostatic charge to substantially dissipate in less than
- about 1 second; and
- (ii) a second insulative layer over the first
- semiconductive layer, the second insulative layer having a resistivity higher than the
- 10 first semiconductive layer; and
- (b) an electrode in the dielectric member.
20. An electrostatic chuck according to claim 19 wherein the first
- semiconductive layer comprises a resistivity of from about $5 \times 10^9 \Omega \text{ cm}$ to about $8 \times$
- 15 $10^{10} \Omega \text{ cm}$.
21. An electrostatic chuck according to claim 19 wherein the
- second insulative layer comprises a resistivity of from about 1×10^{11} to about 1×10^{20}
- $\Omega \text{ cm}$.
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22. An electrostatic chuck according to claim 19 wherein the first
- semiconductive layer comprises Al_2O_3 .
23. An electrostatic chuck according to claim 19 wherein the
- 25 electrode is embedded in the first semiconductive layer of the dielectric member.
24. An electrostatic chuck according to claim 19 wherein the
- second insulative layer comprises SiO_2 .
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25. An electrostatic chuck according to claim 19 wherein the
- second insulative layer comprises ZrO_2 .